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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Andreas Kohl

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EXAMINER

BROADHEAD, BRIAN J

ART UNIT

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3665

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/550,989	<b>Applicant(s)</b> KOHL ET AL.	
	<b>Examiner</b> BRIAN J. BROADHEAD	<b>Art Unit</b> 3665	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2011 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “depending on the reported general mode of operation, allowing actuator actuation only by an authorized system service” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. This limitation seems to corresponds to the “first step” in paragraph 9 and paragraph 26.
2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

**3. Specification**

4. The disclosure is objected to because of the following informalities:
5. The last sentence of paragraph 29 is not clear. What is trying to be conveyed after the “however”?
6. Appropriate correction is required.

**7. Claim Objections**

8. Claim 14 is objected to because of the following informalities:
9. The limitations starting with “a brake system...” is written in confusing language and needs to be re-written in more clear manner.
10. Appropriate correction is required.
11. Claim 16 is objected to because of the following informalities:
12. The different modes of operation should be separately indented to make the claim easier to read and the punctuation cleaned up to make it clearer when one mode ends and the next begins.
13. Appropriate correction is required.
14. Claim 13 is objected to because of the following informalities: There is a line in the claims after “the” that should not be there. Or was it supposed to cross through the word “the”?
15. Appropriate correction is required.
16. Claim 16 is objected to because of the following informalities: On line 4, “expiry” should be replaced with “expiration”.
17. Appropriate correction is required.

**18. Claim Rejections - 35 USC § 112**

19. The following is a quotation of the first paragraph of 35 U.S.C. 112:

20. The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

21. Claims 9 through 16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

22. The claims recite using arbitration or arbitration rules to process actuator access requirements and more specifically vertical and horizontal arbitration. There is no clear explanation of how this is accomplished since the originally filed specification is lacking in detail. As originally filed, paragraph 9 of the specification does describe vertical arbitration as giving different priority to different forms of actuator drive signals or "types of arbitration". The different types including pressure, current, or on/off. The paragraph goes on to say that horizontal arbitration determines priority of a signal by "means of which the selected system service wants to drive the actuator". This sounds a lot like the vertical arbitration and it isn't clear what scope to give the term "horizontal arbitration". When is the system service "selected"? A search was made on the term and it is not a term of art with a known definition.

23. As originally filed, paragraphs 26 and 27 also discuss vertical and horizontal arbitration but not helpful in determining both meanings. In paragraph 26, vertical

Art Unit: 3665

arbitration is described as “evaluated according to a predetermined rank or priority of the individual types of arbitration.” From what is described in paragraph 9, it is possible to make some sense of paragraph 26, but it is still not clear what meaning to assign to the word “evaluated” or what that entails. In the originally filed paragraph 27, it simply states horizontal arbitration is carried out and one of the actuator access requirements is allowed to pass but how the access requirement is chosen is never disclosed. In the originally filed paragraph 28, horizontal arbitration is again mentioned but this appears to be describing the same thing as vertical arbitration. Basically, it is not clearly described in the original specification what horizontal arbitration represents.

24. The amendment filed 2-17-11, amends paragraphs 26 through 28 in an attempt to overcome the previous rejections and clear up these matters. In paragraph 26, the addition of “Sorting according to signals of the same physical unit’ is referred to vertical arbitration”, is not supported by the original specification and actually contradicts paragraph 25. Paragraph 25 already states that the actuator access requirements are sorted in the intermediate storage according to types of arbitration, that means, they are sorted according to signals of the same physical unit and then they are relayed to the access management. So if they are already sorted before being sent to the access management, why would they be sorted again in another step?

25. Amended paragraph 27 adds the limitation “This horizontal arbitration is predefined to set out which of the systems providing the required physical units selected from the vertical arbitrations are preferred.” This entire statement is new matter and not supported by the originally filed disclosure. There is no previous mention of horizontal

Art Unit: 3665

arbitration selecting preferred systems; it is not clear what is meant by "required physical units"; and it is not clear how or when any physical units were "selected".

26. Amended paragraph 28 changes what is given priority "in the sense of" horizontal arbitration and now makes it what is given priority "in the sense of" vertical arbitration. Given what was originally disclosed in paragraph 9, this change seems to be supported, but it still doesn't give meaning to the term "evaluated" used in paragraph 26 to describe vertical arbitration.

27. Claims 9 through 16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims recite using arbitration or arbitration rules to process actuator access requirements and more specifically vertical and horizontal arbitration or two stage arbitration. There is no clear explanation of how this is accomplished. The two types of arbitration are not explained clearly enough to determine how they operate and one of ordinary skill in the art is prevented from using or making the invention. Also see the above discussion with respect to the written description.

28. Regarding claim 16, it is unclear how all the different modes of operation can be used. The problem is with the "normal mode". It is claimed as occurring after a starting phase in the absence of an error. This doesn't leave room for the diagnosis mode or the customer software mode. After the car starts and transitions from the starting phase mode it appears the only thing that can interrupt the normal mode is the appearance of

Art Unit: 3665

an error message which would mean a transition to the failsafe mode. If this is the case how can the customer software mode or diagnosis mode happen if only an error message changes the normal mode?

29. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for changing a mode of operation according to predefined rules in consideration of the instantaneous mode of operation *in response to an access requirement by a system service*, does not reasonably provide enablement for changing a mode of operation according to predefined rules in consideration of the instantaneous mode of operation. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. The claim isn't claiming what the invention is by failing to recite the access requirement.

30. The following is a quotation of the second paragraph of 35 U.S.C. 112:

31. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

32. Claims 9-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

33. Claim 9 recites the limitation "a general control system" in line 5. There is insufficient antecedent basis for this limitation in the claim. Is this the same or different from the previously mentioned "general electronic control system"?

34. Claim 9 recites the limitation "the instantaneous mode of operation" in line 7. There is insufficient antecedent basis for this limitation in the claim.



Art Unit: 3665

35. Claim 9 recites the limitation "the reported currently mode of operation" in line 9. There is insufficient antecedent basis for this limitation in the claim.

36. Claim 9 recites the limitation "processes" in line 10. There is insufficient antecedent basis for this limitation in the claim. What is carrying out this processing?

37. Claim 11 recites the limitation "the access requirement originating from a system service" in line 1-2. There is insufficient antecedent basis for this limitation in the claim. Claim 9 only describes a singular "actuator access requirement" in line 5, but never discloses it comes from a system service.

38. Claim 12 recites the limitation "the reported, current general mode of operation" in line 3. There is insufficient antecedent basis for this limitation in the claim.

39. Claim 12 recites the limitation "the authorized access requirements" in line 4. There is insufficient antecedent basis for this limitation in the claim.

40. Claim 12 recites the limitation "the access requirements" in line 8. There is insufficient antecedent basis for this limitation in the claim. The claim recites these as being the access requirements from the second step, but the second step only mentions "the authorized access requirements."

41. Claim 12 recites the limitation "the signal for driving an actuator" in line 9. There is insufficient antecedent basis for this limitation in the claim.

42. Claim 13 recites the limitation "the mode of operation" in line 2. There is insufficient antecedent basis for this limitation in the claim.

43. Claim 14 recites the limitation "the mode of operation" in line 8. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 3665

44. Claim 14 recites the limitation "a reported general mode of operation" in lines 11-12. There is insufficient antecedent basis for this limitation in the claim. Is this the same or different than the current mode of operation that is reported earlier in the claim?

45. Claim 14 recites the limitations "a system service (1)", "the system services (1)", and "an authorized system service (1)". By using the same reference number it appears that they are all referring to the same thing, but since they are called different names it is confusing and makes the claim indefinite.

46. Regarding claims 14, the limitation "wherein the system service comprises a brake system..." is unclear as to what is being claimed. It is not clear what is being "determined and checked", what "determined and checked" means, and what does "in connection with" encompass?

47. Claim 15 recites the limitation "the general system" in line 3. There is insufficient antecedent basis for this limitation in the claim. Is this the same as the general control system?

#### **48. Response to Arguments**

49. Applicant's arguments with respect to claims 9 through 16 have been considered but are moot in view of the new ground(s) of rejection.

50. The amendments to the specification have brought up the issue of new matter and have not helped with the enablement and written description requirements.

51. Claim 9 still doesn't include that the "changing of a mode of operation..." is in response to the actuator access requirement as discloses in the specification. As

Art Unit: 3665

currently claimed, the mode can be changed spontaneously without any type of input and this is broader than what is enabled by the specification. Claims 9 still states that something "processes" but never discloses what is doing the processing. It is still suggested that the "access management" be added to the claim since this is what "processes".

### ***Conclusion***

52. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN J. BROADHEAD whose telephone number is (571)272-6957. The examiner can normally be reached on Monday, Tuesday, Thursday, Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Q. Nguyen can be reached on 571-272-6952. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3665

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/Brian J. Broadhead/  
Examiner, Art Unit 3664  
1.